

REMARKS

I. Introduction

With the cancellation herein without prejudice of claims 2, 3 and 15 and the addition of new claim 16, claims 1, 4 to 14 and 16 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Applicants note with appreciation the acknowledgment of the claim for foreign priority and the indication that all copies of the certified copies of the priority documents have been received from the International Bureau.

Applicants thank the Examiner for considering the previously filed Information Disclosure Statement, PTO-1449 paper and cited reference.

II. Rejection of Claims 1, 2, 9 to 11, 14 and 15 Under 35 U.S.C. § 103(a)

Claims 1, 2, 9 to 11, 14 and 15 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of U.S. Patent No. 6,529,135 ("Bowers et al.") and Japanese Published Patent Application No. 8-261792 ("Takashi et al."). Applicants respectfully submit that the combination of Bowers et al. and Takashi does not render unpatentable the present claims, as amended, for the following reasons.

Claim 1 relates to a system for monitoring a temperature prevailing in a stator unit of an electric drive. Claim 1 recites that the system includes a position measurement device connected to the drive including a signal processor unit, an electrical transmitter unit, and a temperature sensor integrated into windings of the stator unit and configured to deliver a temperature-dependent sensor signal, the electrical transmitter unit configured to input the sensor signal into the signal processor unit. Claim 1 has been amended herein without prejudice to include the features recited in claims 2 and 3. That is, claim 1 has been amended herein without prejudice to recite that the temperature sensor includes a temperature-dependent resistor integrated into the windings of the stator unit and to recite that the electrical transmitter unit includes at least two inductively coupled coils, a first one of the coils associated with the signal processor unit, a second one of the coils associated with the temperature sensor.

Bowers et al. purportedly relate to an integrated electric motor monitor. Takashi et al. purportedly relate to a rotary encoder. The Office Action admits that the combination Takashi et al. and Bowers et al. does not disclose a system in which “the electrical transmitter unit includes at least two inductively coupled coils, a first one of the coils associated with the signal processor unit, a second one of the coils associated with the temperature sensor; and wherein the first one of the coils is arranged to be acted on by activation signals via the electrical transmitter unit to detect the temperature-dependent sensor signal.”

In the rejection of claim 3, the features of which have been incorporated into amended claim 1, the Office Action asserts, however, that U.S. Patent No. 4,150,358 (“Aviander”) remedies the above noted deficiencies of Bowers et al. and Takashi et al. Applicants respectfully submit that the combination of Bowers et al., Takashi et al. and Aviander does not disclose, or even suggest, a temperature sensor including a temperature resistor integrated into the windings of a **stator unit**. Aviander purportedly relates to a temperature measuring system for rotating machines. Temperature-dependent resistor 7 is specifically stated to be arranged in the **rotor portion**, i.e., a **movable portion**, of the pulse generating device. See col. 2, lines 26 to 27. In contrast, claim 1, recites that the temperature sensor includes a temperature-dependent resistor **integrated into the windings of the stator unit**, i.e., a stationary unit. Further, claim 1 has been amended herein without prejudice to recite that the temperature sensor includes a temperature-dependent **resistor integrated into windings of a stator unit** and that the electrical transmitter unit includes at least two inductively coupled coils, a first one of the coils associated with the signal processor unit, a second one of the coils associated with the temperature sensor. Therefore, the combination of Bowers et al., Takashi et al. and Aviander does not disclose all of the limitations of amended claim 1.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). As stated above, the combination of Bowers et al., Takashi et al. and Aviander does not disclose, or even suggest, all of the limitations of claim 1. It is therefore respectfully submitted that the combination of Bowers et al., Takashi et al. and Aviander does not render unpatentable claim 1.

Moreover, as indicated above, claim 1 recites that the temperature-sensor is integrated into windings of a **stator unit**. In stark contrast, Aviander discloses a temperature sensor arranged on a drive **rotor**, i.e., a movable portion of a machine. Aviander address transmission of temperature signals from the rotating rotor to the stationary parts by an inductive coupling arrangement with two windings 3, 4. However, this arrangement results from a completely different problem than that addressed in the present application. In this regard, the system according to the present application is not concerned with addressing the transmission of temperature data from a moving part to a stationary part because the temperature sensor is arranged in the windings of a stator unit. Furthermore, the system according to the present application may ensure a certain isolation between sensitive position encoder electronics and the temperature sensor in the stator, which may experience very high disturbing currents. In view of the foregoing, it is readily apparent that the present rejection is based on nothing more than improper hindsight reasoning since there is no suggestion or motivation disclosed by Bowers et al., Takashi et al. or Aviander to make the proposed combination.

In view of the foregoing, it is respectfully submitted that the combination of Bowers et al., Takashi et al. and Aviander does not render unpatentable amended claim 1.

As for claims 9 to 11 and 14, which ultimately depend from claim 1 and therefore include all of the limitations of claim 1, it is respectfully submitted that the combination of Bowers et al., Takashi et al. and Aviander does not render unpatentable these dependent claims for at least the same reasons provided above in support of the patentability of claim 1. In re Fine, supra (any dependent claim that depends from a non-obvious independent claim is non-obvious).

Claims 2 and 15 have been canceled herein without prejudice, thereby rendering moot the present rejection with respect to these claims.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

III. Rejection of Claims 3 and 4 Under 35 U.S.C. § 103(a)

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Bowers et al., Takashi et al. and Aviander.

Since claim 3 has been canceled herein without prejudice, it is respectfully submitted that the present rejection is moot with respect to claim 3.

As more fully set forth above, claim 1 has been amended herein without prejudice to include the features recited in claim 3 as originally filed. As detailed above, the combination of Bowers et al., Takashi et al. and Aviander does not disclose, or even suggest, a temperature sensor including a temperature resistor integrated into windings of a **stator unit**. Further, the combination of Bowers et al., Takashi et al. and Aviander does not disclose, or even suggest, that a temperature sensor includes a temperature-dependent **resistor integrated into windings of a stator unit** and that an electrical transmitter unit includes at least two inductively coupled coils, a first one of the coils associated with a signal processor unit, a second one of the coils associated with the temperature sensor. Therefore, it is respectfully submitted that the combination of Bowers et al., Takashi et al. and Aviander does not render unpatentable claim 1.

As for claim 4, which has been amended herein without prejudice to depend from claim 1 and therefore includes all of the limitations of claim 1, it is respectfully submitted that the combination of Bowers et al., Takashi et al. and Aviander does not render obvious claim 4 for at least the same reasons more fully set forth above in support of the patentability of claim 1.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

IV. Allowable Subject Matter

Applicants note with appreciation the indication of allowable subject matter contained in claims 5, 7 and 12. In this regard, the Examiner will note that claim 5 has been rewritten herein in independent form to include all of the limitations of its base claim and any intervening claims. It is therefore respectfully submitted that claim 5 is in condition for immediate allowance. Since claims 7 and 12 depend

from claim 5, it is respectfully submitted that claims 7 and 12 are also in condition for immediate allowance.

V. New Claim 16

New claim 16 has been added herein. It is respectfully submitted that claim 16 does not add any new matter and is fully supported by the present application, including the Specification. Since claim 16 depends from claim 1, it is respectfully submitted that claim 16 is patentable over the references relied upon for at least the same reasons more fully set forth above in support of the patentability of claim 1.

VI. Withdrawn Claims

Since claim 5 is believed to be in condition for immediate allowance, Applicants respectfully request consideration of withdrawn claim 6, which depends from claim 5.

As for withdrawn claims 8 and 13, which ultimately depend from claim 1, since claim 1 is believed to be allowable for the reasons more fully set forth above, Applicants respectfully request consideration of claims 8 and 13.

VII. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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